

Mr. Steve Rice  
Peerless Pottery, Inc.  
P.O. Box 145  
Rockport, IN 47635

Re: 147-12985  
First Administrative Amendment to  
FESOP 147-7890-00010

Dear Mr. Rice:

Peerless Pottery, Inc. was issued a permit on December 12, 1997 for a vitreous china plumbing fixtures manufacturing plant. A letter requesting changes to this permit was received on November 14, 2000. Based on the information provided by Peerless Pottery, Inc., the potential emissions from the proposed units are at exemption level.

#### Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	2.54
PM-10	2.54
SO <sub>2</sub>	0.00
VOC	1.45
CO	11.73
NO <sub>x</sub>	2.52

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
hexane	0.01
hydrogen fluoride	1.55
TOTAL	1.56

## Potential to Emit After Modification

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units for the modification. The source is limited to 50% capacity by the original FESOP. This limit shall also apply to the proposed modification.

	Potential to Emit (tons/year)					
Process/facility	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Existing FESOP Source	92.40	0.00	4.39	33.68	5.51	4.69
Modification (28 MMBtu/hr kiln)	0.83	0.00	0.73	5.57	0.91	0.78
Modification (insignificant activities including one fired ware inspection and patch booth, four natural gas heaters, bowl and lavatory base grinders, and a fired ware crusher)	0.45	0.00	0.00	0.30	0.35	0.00
Total Emissions	93.68	0.0	5.12	39.55	6.77	5.47
Title V Applicability Threshold	100	100	100	100	100	25

- (a) Limited emissions from this source, including this modification, are less than 100 tons per year, therefore, this source is not subject to the Part 70 Operating Permit Program. The requirements of 326 IAC 2-2 (PSD) are also not applicable.

The hourly limits for 362 IAC 6-3 (Process Operations) shall be based on a limit of 50% of the source capacity from the original FESOP.

Pursuant to the provisions of 326 IAC 2-8-10 the permit is hereby administratively amended as follows:

All references to the Office of Air Management (OAM) on the cover page and the affected pages 5, 6, 7, 27, 28, 31, and 31a have been changed to the Office of Air Quality (OAQ).

The K-3 kiln is being replaced with the new firing kiln in Section A.2 as follows:

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) two (2) 3.92 million British thermal units per hour natural gas fired firing kilns, identified as K-1 and K-2, each with a maximum capacity of processing 0.76 tons of ceramic per hour, and each exhausting through two (2) stacks (ID Nos. B10CS1 and B10CS2 for K-1, ID Nos. B10BS7 and B10BS9 for K-2);
- (b) ~~one (1) 3.92 million British thermal units per hour natural gas fired firing kiln, identified as K-3, with a maximum capacity of processing 0.55 tons of ceramic per hour, and exhausting through two (2) stacks (ID Nos. B10BS1 and B10BS2);~~ **one (1) 28 million British thermal units per hour natural gas fired firing/refiring kiln, identified as RK-1, with a maximum capacity of firing 0.77 tons of ceramic per hour or refiring 0.578**

**tons of ceramic per hour, and exhausting through two (2) stacks (ID Nos. B10CS3 and B10CS4);**

- (c) one (1) 20 million British thermal units per hour natural gas fired firing kiln, identified as K-4, with a maximum capacity of processing 2.59 tons of ceramic per hour, and exhausting through two (2) stacks (ID Nos. B10aS1 and B10aS2);
- (d) one (1) tank casting and scraping operation, identified as B2P3T, with a maximum capacity of processing 133 tanks per hour, located in Building B2;
- (e) one (1) bowl casting and scraping operation, identified as B3P3B, with a maximum capacity of processing 288 bowls per hour, located in Building B3;
- (f) one (1) urinal casting and scraping operation, identified as B4P3U, with a maximum capacity of processing 8 urinals per hour, located in Building B4;
- (g) one (1) tank casting and scraping operation, identified as B4P3T, with a maximum capacity of processing 165 tanks per hour, located in Building B4;
- (h) one (1) lavatory casting and scraping operation, identified as B4P3L, with a maximum capacity of processing 66.2 lavatories per hour, located in Building B4;
- (i) one (1) bowl casting and scraping operation, identified as B4P3B, with a maximum capacity of processing 56 bowls per hour, located in Building B4;
- (j) one (1) manual glaze spray booth, identified as B7P5M1, with a maximum capacity of spraying 450 pounds of glaze per hour, using a baghouse, identified as B7C2, for overspray control, exhausting at one (1) stack (ID No. B7);
- (k) one (1) manual glaze spray booth, identified as B7P5M2, with a maximum capacity of spraying 450 pounds of glaze per hour, using a baghouse, identified as B7C3, for overspray control, and exhausting at one (1) stack (ID No. B7);
- (l) one (1) double automated glaze spray booth, identified as B7P5A1, with a maximum capacity of spraying 2550 pounds of glaze per hour, using a baghouse, identified as B7C5, for overspray control, and exhausting at one (1) stack (ID No. B7S22);
- (m) one (1) automated glaze spray booth, identified as B7P5A2, with a maximum capacity of spraying 1275 pounds of glaze per hour, using a waterwash for overspray control, and exhausting at one (1) stack (ID No. B7S1); and
- (n) one (1) automated glaze spray booth, identified as B7P5A3, with a maximum capacity of spraying 1275 pounds of glaze per hour, using a waterwash for overspray control, and exhausting at one (1) stack (ID No. B7S2).

The new equipment is being added to the list of insignificant activities and Section A.3 is revised as follows:

**A.3 Insignificant Activities [326 IAC 2-7-1(20)] [326 IAC 2-8-3(c)(3)(I)]**

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- (a) one (1) natural gas fired dryer, with a rated capacity of 2.5 million British thermal units per hour;
- (b) application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;
- (c) degreasing operations that do not exceed 145 gallons per 12 months;
- (d) closed loop heating and cooling systems;
- (e) activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1 percent by volume;
- (f) water based adhesives that are less than or equal to 5 percent by volume of VOCs excluding HAPs;
- (g) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

- (h) paved and unpaved roads and parking lots with public access;
- (i) grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations;
- (j) mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degree C);
- (k) farm operations;
- (l) one (1) inspection and bowl trap glazing booth, identified as B7P4M1, with overspray controlled by Baghouses B7C1 and B7C5;
- (m) one (1) inspection booth, identified as B10AP4M1, with overspray controlled by Baghouse B10ADC1;
- (n) one (1) inspection and reconditioning booth, identified as B10DP4M1, with overspray controlled by Baghouse B10DC1;
- (o) mold making activities;
- (p) one (1) silo containment system, with dust controlled by a passive baghouse, identified as B5C1;
- (q) one (1) reclaim crusher, with dust controlled by Baghouse B5C3;
- (r) one (1) blunger, with dust controlled by a passive baghouse, identified as B5C2; and
- (s) glaze mix-up operation, with dust controlled by a filter system;
- (t) one (1) fired ware inspection and patch booth, identified as B10AP4M2, with overspray controlled by Baghouse B10DC1;**
- (u) four (4) natural gas space heaters, each rated at 0.375 MMBtu per hour;**
- (v) one (1) bowl base grinder, exhausting through the baghouse B10DC1;**
- (w) one (1) lavatory base grinder, exhausting through the baghouse B10DC1; and**
- (x) one (1) fired ware crusher.**

The K-3 kiln shall be replaced with the new firing kiln in the facility description in Section D.1 as follows:

## SECTION D.1 FACILITY OPERATION CONDITIONS

- (a) two (2) 3.92 million British thermal units per hour natural gas fired firing kilns, identified as K-1 and K-2, each with a maximum capacity of processing 0.76 tons of ceramic per hour, and each exhausting through two (2) stacks (ID Nos. B10CS1 and B10CS2 for K-1, ID Nos. B10BS7 and B10BS9 for K-2);
- (b) ~~one (1) 3.92 million British thermal units per hour natural gas fired firing kiln, identified as K-3, with a maximum capacity of processing 0.55 tons of ceramic per hour, and exhausting through two (2) stacks (ID Nos. B10BS1 and B10BS2);~~ **one (1) 28 million British thermal units per hour natural gas fired firing/refiring kiln, identified as RK-1, with a maximum capacity of firing 0.77 tons of ceramic per hour or refiring 0.578 tons of ceramic per hour, and exhausting through two (2) stacks (ID Nos. B10CS3 and B10CS4);**
- (c) one (1) 20 million British thermal units per hour natural gas fired firing kiln, identified as K-4, with a maximum capacity of processing 2.59 tons of ceramic per hour, and exhausting through two (2) stacks (ID Nos. B10aS1 and B10aS2);
- (d) one (1) tank casting and scraping operation, identified as B2P3T, with a maximum capacity of processing 133 tanks per hour, located in Building B2;
- (e) one (1) bowl casting and scraping operation, identified as B3P3B, with a maximum capacity of processing 288 bowls per hour, located in Building B3;
- (f) one (1) urinal casting and scraping operation, identified as B4P3U, with a maximum capacity of processing 8 urinals per hour, located in Building B4;
- (g) one (1) tank casting and scraping operation, identified as B4P3T, with a maximum capacity of processing 165 tanks per hour, located in Building B4;
- (h) one (1) lavatory casting and scraping operation, identified as B4P3L, with a maximum capacity of processing 66.2 lavatories per hour, located in Building B4;
- (i) one (1) bowl casting and scraping operation, identified as B4P3B, with a maximum capacity of processing 56 bowls per hour, located in Building B4;
- (j) one (1) manual glaze spray booth, identified as B7P5M1, with a maximum capacity of spraying 450 pounds of glaze per hour, using a baghouse, identified as B7C2, for overspray control, exhausting at one (1) stack (ID No. B7);
- (k) one (1) manual glaze spray booth, identified as B7P5M2, with a maximum capacity of spraying 450 pounds of glaze per hour, using a baghouse, identified as B7C3, for overspray control, and exhausting at one (1) stack (ID No. B7);
- (l) one (1) double automated glaze spray booth, identified as B7P5A1, with a maximum capacity of spraying 2550 pounds of glaze per hour, using a baghouse, identified as B7C5, for overspray control, and exhausting at one (1) stack (ID No. B7S22);
- (m) one (1) automated glaze spray booth, identified as B7P5A2, with a maximum capacity of spraying 1275 pounds of glaze per hour, using a waterwash for overspray control, and exhausting at one (1) stack (ID No. B7S1); and
- (n) one (1) automated glaze spray booth, identified as B7P5A3, with a maximum capacity of spraying 1275 pounds of glaze per hour, using a waterwash for overspray control, and exhausting at one (1) stack (ID No. B7S2).

The K-3 is being replaced in Condition D.1.1 as follows:

### D.1.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rates from the facilities covered under Section D.1 shall not exceed the emission rates listed below when the facilities are operated at the listed corresponding maximum process weight rate:

Source ID	Source Description	Allowable Emissions (lb/hr)	Maximum Process Weight Rate (ton/hr)
(a) K-1	Firing Natural Gas Fired Kiln	0.40	0.76
(a) K-2	Firing Natural Gas Fired Kiln	0.40	0.76
(b) <del>K-3</del> <b>RK-1</b>	Firing/ <b>Refiring</b> Natural Gas Fired Kiln	<del>0.29</del> <b>2.16</b>	<del>0.55</del> <b>0.77</b>
(c) K-4	Firing Natural Gas Fired Kiln	1.36	2.59
(d) B2P3T	Tank Casting Scraping	1.81	2.35
(e) B3P3B	Bowl Casting Scraping	10.35	4.67
(f) B4P3U	Urinal Casting Scraping	0.29	0.10
(g) B4P3T	Tank Casting Scraping	2.25	2.91
(h) B4P3L	Lavatory Casting Scraping	0.38	0.68
(i) B4P3B	Bowl Casting Scraping	2.01	0.91
(j) B7P5M1	Manual Glaze Booth	0.09	0.84
(k) B7P5M2	Manual Glaze Booth	0.09	0.84
(l) B7P5A1	Double Automated Glaze Booth	0.52	4.78
(m) B7P5A2	Automated Glaze Booth	3.90	2.39
(n) B7P5A3	Automated Glaze Booth	3.90	2.39

The equipment that is added to Section A.3 is also added to the facility description in Section D.2 as follows:

## SECTION D.2 FACILITY OPERATION CONDITIONS

- (a) one (1) inspection and bowl trap glazing booth, identified as B7P4M1, with overspray controlled by Baghouses B7C1 and B7C5;
- (b) one (1) inspection booth, identified as B10AP4M1, with overspray controlled by Baghouse B10ADC1;
- (c) one (1) inspection and reconditioning booth, identified as B10DP4M1, with overspray controlled by Baghouse B10DC1;
- (d) mold making activities;
- (e) one (1) silo containment system, with dust controlled by a passive baghouse, identified as B5C1;
- (f) one (1) reclaim crusher, with dust controlled by Baghouse B5C3;
- (g) one (1) blunger, with dust controlled by a passive baghouse, identified as B5C2; and
- (h) glaze mix-up operation, with dust controlled by a filter system.
- (i) one (1) fired ware inspection and patch booth, identified as B10AP4M2, with overspray controlled by Baghouse B10DC1;**
- (j) one (1) bowl base grinder, exhausting through the baghouse B10DC1;**
- (k) one (1) lavatory base grinder, exhausting through the baghouse B10DC1; and**
- (l) one (1) fired ware crusher.**

Condition D.2.1 is revised as follows:

### D.2.1 Particulate Matter (PM) [326 IAC 6-3]

- (a)** Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from each of the facilities (insignificant activities) ~~covered~~ **listed in (a) through (h)** under Section D.2 shall not exceed allowable PM emission rate of 1.07 pounds per hour.
- (b)** Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the fired ware inspection and patch booth and the fired ware crusher with process weight rates of 2.33 tons per hour and 1 ton per hour, respectively, shall be limited to 4.54 and 2.58 pounds per hour, respectively.
- (c)** Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the bowl base grinder and the lavatory base grinders, which each have a process weight rate less than 100 pounds per hour, shall be limited to 0.551 pounds per hour each.

This limit is based on the following equation with a limit of 50% of source capacity:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and  
P = process weight rate in tons per hour

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions  
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit  
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please call Lisa M. Wasiowich at (973) 575-2555 x3206, or call (800) 451-6027, press 0 and ask for extension 3-6878.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

Attachments  
LMW/EVP

cc: File - Spencer County  
U.S. EPA, Region V  
Spencer County Health Department  
Southwest Regional Office  
Air Compliance Section Inspector - Scott Anslinger  
Compliance Data Section - Jerri Curless  
Administrative and Development - Janet Mobley  
Technical Support and Modeling - Michelle Boner



## Appendix A: Emission Calculations

**Company Name:** Peerless Pottery, Inc.  
**Address City IN Zip:** North Lincoln Avenue, Rockport, IN 47635  
**CP:** 147-12985  
**Plt ID:** 147-00010  
**Reviewer:** Lisa M. Wasiowich/EVP  
**Date:** December 20, 2000

Uncontrolled Potential Emissions (tons/year)					
Emissions Generating Activity					
Pollutant	Natural Gas Combustion	Fire/Refire Kiln	Fired Ware Crusher	Miscellaneous Emissions	TOTAL
PM	0.00	1.65	0.01	0.88	2.54
PM10	0.00	1.65	0.01	0.88	2.54
SO2	0.00	0.00	0.00	0.00	0.00
NOx	0.70	1.82	0.00	0.00	2.52
VOC	0.00	1.45	0.00	0.00	1.45
CO	0.60	11.13	0.00	0.00	11.73
total HAPs	0.01	1.55	0.00	0.00	1.56
worst case single HAP	0.01	1.55	0.00	0.00	1.55
	hexane	hydrogen fluoride			
Total emissions based on rated capacity at 8,760 hours/year minus the removed equipment.					
Controlled Potential Emissions (tons/year)					
Emissions Generating Activity					
Pollutant	Natural Gas Combustion	Fire/Refire Kiln	Fired Ware Crusher	Miscellaneous Emissions	TOTAL
PM	0.00	1.65	0.01	0.01	1.67
PM10	0.00	1.65	0.01	0.01	1.67
SO2	0.00	0.00	0.00	0.00	0.00
NOx	0.70	1.82	0.00	0.00	2.52
VOC	0.00	1.45	0.00	0.00	1.45
CO	0.60	11.13	0.00	0.00	11.73
total HAPs	0.01	1.55	0.00	0.00	1.56
worst case single HAP	0.01	1.55	0.00	0.00	1.55
Total emissions based on rated capacity at 8,760 hours/year, after control minus the removed equipment.					

**Appendix A: Emissions Calculations**  
**Firing/Refire-Natural Gas Fired Kiln**

**Company Name:** Peerless Pottery, Inc.  
**Address City IN Zip:** North Lincoln Avenue, Rockport, IN 47635  
**CP #:** 147-12985  
**Plt ID:** 147-00010  
**Reviewer:** Lisa M. Wasiowich/EVP  
**Date:** December 19, 2000

**Raw Material Input Capacity**  
**tons of Ceramic/hr**

**Potential Throughput**  
**ton/yr**

0.770	<b>Firing Kiln</b>	6745.2
0.578	<b>Refire Kiln</b>	5063.3
0.550	<b>Removed Kiln</b>	4818.0

Raw Material Input Capacity includes:

one kiln that can either fire 0.77 tons/hr or refire 0.578 tons per hour

emissions calculations are done for both and the worst case emissions are used

		Emissions (ton/yr)						
		PM	PM10	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	HF
Emission Factor (lb/ton)	Pollutant							
	Firing Kiln	0.49	0.49	0.44 S **	0.54	0.43	3.30	0.46
	Refire Kiln	0.067	0.067	0.00	0.00	0.00	0.00	0.019
	Removed Kiln	0.49	0.49	0.44 S **	0.54	0.43	3.30	0.46
Potential Emission in tons/yr	Firing Kiln	1.65	1.65	0.00	1.82	1.45	11.13	1.55
	Refire Kiln	0.17	0.17	0.00	0.00	0.00	0.00	0.05
	<b>Worst Case</b>	1.65	1.65	0.00	1.82	1.45	11.13	1.55
	<b>Removed Kiln</b>	1.18	1.18	0.00	1.30	1.04	7.95	1.11

\*\* S is the sulfur content of raw material. The source is using the raw material with no sulfur content, per MSDS.

The source is using lead-free material, therefore no lead is emitted.

Methodology:

Potential Throughput (ton/yr) = Raw Material Input Capacity (ton/hr) x 8,760 hrs/yr

Emission Factors are from AP 42, Chapter 11.7, Tables 11.7-1, 11.7-2 SCC #3-05-008-50

Potential Emission (tons/yr) = Throughput (ton/hr) x Emission Factor (lb/ton)/2,000 lb/ton x 8760 hr/yr

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**

**Company Name:** Peerless Pottery, Inc.  
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Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

1.5

13.1

includes four (4) space heaters, each with a maximum heat input capacity of 0.375 MMBtu/hr

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.0	0.0	0.0	0.7	0.0	0.6

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**HAPs Emissions**

Page 4 of 5 TSD App A

**Company Name:** Peerless Pottery, Inc.  
**Address City IN Zip:** North Lincoln Avenue, Rockport, IN 47635  
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HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.380E-05	7.884E-06	4.928E-04	1.183E-02	2.234E-05

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	3.285E-06	7.227E-06	9.198E-06	2.497E-06	1.380E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.  
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Process Particulate Emissions**

**Company Name:** Peerless Pottery, Inc.  
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**Fired Ware Crusher**

pollutant	maximum throughput (tons/hour)	emission factor (lb/ton)	potential emissions (tons/year)
PM-10	1.0	0.0024	0.011

potential emissions = maximum throughput (tons/hour) \* emission factor (lb/ton) \* 8760 hours per year / 2000 lbs per ton  
 emissions from  
 this operation.

**Estimated Miscellaneous Emissions**

Emission Unit	Estimated (lbs/hr)	Estimated (tons/yr)	Control Efficiency	Estimated Controlled (lbs/hr)	Estimated Controlled (tons/yr)
patch booth *	0	0	99.00%	0	0
grinder	0.1	0.438	99.00%	0.001	0.00438
grinder	0.1	0.438	99.00%	0.001	0.00438
Total	0.2	0.876		0.002	0.00876

there will be  
 no increase in  
 emissions.

**FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP)  
OFFICE OF AIR QUALITY**

**Peerless Pottery, Inc.  
North Lincoln Avenue  
Rockport, Indiana 47635**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 and 326 IAC 2-1-3.2, as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F147-7890-00010	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: December 12, 1997

  

First Administrative Amendment No.: 147-12985-00010      Pages Affected: 5, 6, 7, 27, 28, 31, 31a	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ), and presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a stationary vitreous china plumbing fixtures manufacturing plant.

Responsible Official:	Peerless Pottery, Inc.
Source Address:	North Lincoln Avenue, Rockport, Indiana 47635
Mailing Address:	P. O. Box 145, Rockport, Indiana 47635
SIC Code:	3261
County Location:	Spencer
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) two (2) 3.92 million British thermal units per hour natural gas fired firing kilns, identified as K-1 and K-2, each with a maximum capacity of processing 0.76 tons of ceramic per hour, and each exhausting through two (2) stacks (ID Nos. B10CS1 and B10CS2 for K-1, ID Nos. B10BS7 and B10BS9 for K-2);
- (b) one (1) 28 million British thermal units per hour natural gas fired firing/refiring kiln, identified as RK-1, with a maximum capacity of firing 0.77 tons of ceramic per hour or refiring 0.578 tons of ceramic per hour, and exhausting through two (2) stacks (ID Nos. B10CS3 and B10CS4);
- (c) one (1) tank casting and scraping operation, identified as B2P3T, with a maximum capacity of processing 133 tanks per hour, located in Building B2;
- (d) one (1) bowl casting and scraping operation, identified as B3P3B, with a maximum capacity of processing 288 bowls per hour, located in Building B3;
- (e) one (1) urinal casting and scraping operation, identified as B4P3U, with a maximum capacity of processing 8 urinals per hour, located in Building B4;
- (f) one (1) tank casting and scraping operation, identified as B4P3T, with a maximum capacity of processing 165 tanks per hour, located in Building B4;
- (g) one (1) lavatory casting and scraping operation, identified as B4P3L, with a maximum capacity of processing 66.2 lavatories per hour, located in Building B4;
- (h) one (1) bowl casting and scraping operation, identified as B4P3B, with a maximum capacity of processing 56 bowls per hour, located in Building B4;
- (i) one (1) manual glaze spray booth, identified as B7P5M1, with a maximum capacity of spraying 450 pounds of glaze per hour, using a baghouse, identified as B7C2, for overspray control, exhausting at one (1) stack (ID No. B7);
- (j) one (1) manual glaze spray booth, identified as B7P5M2, with a maximum capacity of spraying 450 pounds of glaze per hour, using a baghouse, identified as B7C3, for overspray control, and exhausting at one (1) stack (ID No. B7);
- (k) one (1) double automated glaze spray booth, identified as B7P5A1, with a maximum capacity of spraying 2550 pounds of glaze per hour, using a baghouse, identified as B7C5, for overspray control, and exhausting at one (1) stack (ID No. B7S22);

- (l) one (1) automated glaze spray booth, identified as B7P5A2, with a maximum capacity of spraying 1275 pounds of glaze per hour, using a waterwash for overspray control, and exhausting at one (1) stack (ID No. B7S1); and
- (m) one (1) automated glaze spray booth, identified as B7P5A3, with a maximum capacity of spraying 1275 pounds of glaze per hour, using a waterwash for overspray control, and exhausting at one (1) stack (ID No. B7S2).

A.3 Insignificant Activities [326 IAC 2-7-1(20)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- (a) one (1) natural gas fired dryer, with a rated capacity of 2.5 million British thermal units per hour;
- (b) application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;
- (c) degreasing operations that do not exceed 145 gallons per 12 months;
- (d) closed loop heating and cooling systems;
- (e) activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1 percent by volume;
- (f) water based adhesives that are less than or equal to 5 percent by volume of VOCs excluding HAPs;
- (g) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (h) paved and unpaved roads and parking lots with public access;
- (i) grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations;
- (j) mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degree C);
- (k) farm operations;
- (l) one (1) inspection and bowl trap glazing booth, identified as B7P4M1, with overspray controlled by Baghouses B7C1 and B7C5;
- (m) one (1) inspection booth, identified as B10AP4M1, with overspray controlled by Baghouse B10DC1;
- (n) one (1) inspection and reconditioning booth, identified as B10DP4M1, with overspray controlled by Baghouse B10DC1;
- (o) mold making activities;
- (p) one (1) silo containment system, with dust controlled by a passive baghouse, identified as B5C1;
- (q) one (1) reclaim crusher, with dust controlled by Baghouse B5C3;
- (r) one (1) blunger, with dust controlled by a passive baghouse, identified as B5C2; and
- (s) glaze mix-up operation, with dust controlled by a filter system.
- (t) one (1) fired ware inspection and patch booth, identified as B10AP4M2, with overspray controlled by Baghouse B10DC1;
- (u) four (4) natural gas space heaters, each rated at 0.375 MMBtu per hour;
- (v) one (1) bowl base grinder, exhausting through the baghouse B10DC1;
- (w) one (1) lavatory base grinder, exhausting through the baghouse B10DC1; and
- (x) one (1) fired ware crusher.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-



2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions Superseded [326 IAC 2]

This permit supersedes the operating conditions of all construction and operating permits issued to this stationary source under 326 IAC 2 prior to the effective date of this FESOP.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

- (a) two (2) 3.92 million British thermal units per hour natural gas fired firing kilns, identified as K-1 and K-2, each with a maximum capacity of processing 0.76 tons of ceramic per hour, and each exhausting through two (2) stacks (ID Nos. B10CS1 and B10CS2 for K-1, ID Nos. B10BS7 and B10BS9 for K-2);
- (b) one (1) 28 million British thermal units per hour natural gas fired firing/refiring kiln, identified as RK-1, with a maximum capacity of firing 0.77 tons of ceramic per hour or refiring 0.578 tons of ceramic per hour, and exhausting through two (2) stacks (ID Nos. B10CS3 and B10CS4);
- (c) one (1) tank casting and scraping operation, identified as B2P3T, with a maximum capacity of processing 133 tanks per hour, located in Building B2;
- (d) one (1) bowl casting and scraping operation, identified as B3P3B, with a maximum capacity of processing 288 bowls per hour, located in Building B3;
- (e) one (1) urinal casting and scraping operation, identified as B4P3U, with a maximum capacity of processing 8 urinals per hour, located in Building B4;
- (f) one (1) tank casting and scraping operation, identified as B4P3T, with a maximum capacity of processing 165 tanks per hour, located in Building B4;
- (g) one (1) lavatory casting and scraping operation, identified as B4P3L, with a maximum capacity of processing 66.2 lavatories per hour, located in Building B4;
- (h) one (1) bowl casting and scraping operation, identified as B4P3B, with a maximum capacity of processing 56 bowls per hour, located in Building B4;
- (i) one (1) manual glaze spray booth, identified as B7P5M1, with a maximum capacity of spraying 450 pounds of glaze per hour, using a baghouse, identified as B7C2, for overspray control, exhausting at one (1) stack (ID No. B7);
- (j) one (1) manual glaze spray booth, identified as B7P5M2, with a maximum capacity of spraying 450 pounds of glaze per hour, using a baghouse, identified as B7C3, for overspray control, and exhausting at one (1) stack (ID No. B7);
- (k) one (1) double automated glaze spray booth, identified as B7P5A1, with a maximum capacity of spraying 2550 pounds of glaze per hour, using a baghouse, identified as B7C5, for overspray control, and exhausting at one (1) stack (ID No. B7S22);
- (l) one (1) automated glaze spray booth, identified as B7P5A2, with a maximum capacity of spraying 1275 pounds of glaze per hour, using a waterwash for overspray control, and exhausting at one (1) stack (ID No. B7S1); and
- (m) one (1) automated glaze spray booth, identified as B7P5A3, with a maximum capacity of spraying 1275 pounds of glaze per hour, using a waterwash for overspray control, and exhausting at one (1) stack (ID No. B7S2).

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rates from the facilities covered under Section D.1 shall not exceed the emission rates listed below when the facilities are operated at the listed corresponding maximum process weight rate:

Source ID	Source Description	Allowable Emissions (lb/hr)	Maximum Process Weight Rate (ton/hr)
(a) K-1	Firing Natural Gas Fired Kiln	0.40	0.76
(a) K-2	Firing Natural Gas Fired Kiln	0.40	0.76
(b) RK-1	Firing/Refiring Natural Gas Fired Kiln	2.16	0.77
(c) K-4	Firing Natural Gas Fired Kiln	1.36	2.59
(d) B2P3T	Tank Casting Scraping	1.81	2.35
(e) B3P3B	Bowl Casting Scraping	10.35	4.67
(f) B4P3U	Urinal Casting Scraping	0.29	0.10
(g) B4P3T	Tank Casting Scraping	2.25	2.91
(h) B4P3L	Lavatory Casting Scraping	0.38	0.68
(i) B4P3B	Bowl Casting Scraping	2.01	0.91
(j) B7P5M1	Manual Glaze Booth	0.09	0.84
(k) B7P5M2	Manual Glaze Booth	0.09	0.84
(l) B7P5A1	Double Automated Glaze Booth	0.52	4.78
(m) B7P5A2	Automated Glaze Booth	3.90	2.39
(n) B7P5A3	Automated Glaze Booth	3.90	2.39

#### D.1.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

### Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

#### D.1.3 Visible Emissions Notations

- Daily visible emission notations of the stack exhausts of all facilities covered under Section D.1 shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

## SECTION D.2 FACILITY OPERATION CONDITIONS

- (a) one (1) inspection and bowl trap glazing booth, identified as B7P4M1, with overspray controlled by Baghouses B7C1 and B7C5;
- (b) one (1) inspection booth, identified as B10AP4M1, with overspray controlled by Baghouse B10DC1;
- (c) one (1) inspection and reconditioning booth, identified as B10DP4M1, with overspray controlled by Baghouse B10DC1;
- (d) mold making activities;
- (e) one (1) silo containment system, with dust controlled by a passive baghouse, identified as B5C1;
- (f) one (1) reclaim crusher, with dust controlled by Baghouse B5C3;
- (g) one (1) blunger, with dust controlled by a passive baghouse, identified as B5C2;
- (h) glaze mix-up operation, with dust controlled by a filter system;
- (i) one (1) fired ware inspection and patch booth, identified as B10AP4M2, with overspray controlled by Baghouse B10DC1;
- (j) one (1) bowl base grinder, exhausting through the baghouse B10DC1;
- (k) one (1) lavatory base grinder, exhausting through the baghouse B10DC1; and
- (l) one (1) fired ware crusher.

### Process Weight Activities

#### **Emission Limitations and Standards [326 IAC 2-8-4(1)]**

##### D.2.1 Particulate Matter (PM) [326 IAC 6-3]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from each of the facilities (insignificant activities) listed in (a) through (h) under Section D.2 shall not exceed allowable PM emission rate of 1.07 pounds per hour.
- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the fired ware inspection and patch booth and the fired ware crusher with process weight rates of 2.33 tons per hour and 1 ton per hour, respectively, shall be limited to 4.54 and 2.58 pounds per hour, respectively.
- (c) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the bowl base grinder and the lavatory base grinders, which each have a process weight rate less than 100 pounds per hour, shall be limited to 0.551 pounds per hour each.

This limit is based on the following equation with a limit of 50% of source capacity:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

## **Compliance Determination Requirement**

### **D.2.2 Testing Requirements [326 IAC 2-8-5(1)]**

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Testing of these facilities is not specifically required by this permit. However, this does not preclude testing requirements on these facilities under 326 IAC 2-1-4(f) and 326 IAC 2-8-4(1).